

Claims

We claim:

- 5 1. A kit comprising a non-amplified oligonucleotide detection assay configured for detecting at least one CFTR allele.
2. The kit of Claim 1, wherein said non-amplified oligonucleotide detection assay comprises first and second oligonucleotides configured to form an invasive
10 cleavage structure in combination with a target sequence comprising said at least one CFTR allele.
3. The kit of Claim 2, wherein said first oligonucleotide comprises a 5' portion and a 3' portion, wherein said 3' portion is configured to hybridize to said target
15 sequence, and wherein said 5' portion is configured to not hybridize to said target sequence.
4. The kit of Claim 2, wherein said second oligonucleotide comprises a 5' portion and a 3' portion, wherein said 5' portion is configured to hybridize to said target
20 sequence, and wherein said 3' portion is configured to not hybridize to said target sequence.
5. The kit of Claim 1, wherein said at least one CFTR allele is selected from the group consisting of 2789+5G>A, R1162X, R560T, 1898+1G>A, delI507, I148T,
25 A455E, or the wild-type versions thereof.
6. The kit of Claim 1, wherein said at least one CFTR allele comprises 2789+5G>A, R1162X, R560T, 1898+1G>A, delI507, I148T, and A455E.

7. The kit of Claim 1, wherein said at least one CFTR allele is selected from the group consisting of 3120+1G>A, 3659delC, G551D, N1303K, 1078delT, R334W, 711+1G>T, 3849+10kb, or the wild-type versions thereof.
- 5 8. The kit of Claim 1, wherein said at least one CFTR allele comprises 3120+1G>A, 3659delC, G551D, N1303K, 1078delT, R334W, 711+1G>T, and 3849+10kb.
9. The kit of Claim 1, wherein said at least one CFTR allele is selected from
10 the group consisting of 621+1G>T, W1282X, 1717-1G>A, R117H, or the wild-type versions thereof.
10. The kit of Claim 1, wherein said at least one CFTR allele comprises 621+1G>T, W1282X, 1717-1G>A, and R117H.
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11. The kit of Claim 1, wherein said at least one CFTR allele is selected from the group consisting R347P, G85E, G542X, R553X, or the wild-type versions thereof.
12. The kit of Claim 1, wherein said at least one CFTR allele comprises
20 R347P, G85E, 2184delA, G542X, or R553X.
13. The kit of Claim 1, wherein said at least one CFTR allele comprises 2184delA.
- 25 14. The kit of Claim 1, wherein said at least one CFTR allele comprises Δ F508 or the wild-type version thereof.
15. A kit comprising oligonucleotide detection assays configured for detecting a set of CFTR alleles, wherein said set is selected from:
30 a) a first set comprising 2789+5G>A, R1162X, R560T, 1898+1G>A, delI507, I148T, and A455E;

b) a second set comprising 3120+1G>A, 3659delC, G551D, N1303K, 1078delT, R334W, 711+1G>T, and 3849+10kb

c) a third set comprising 621+1G>T, W1282X, 1717-1G>A, and R117H;

5 d) a fourth set comprising R347P, G85E, G542X, and R553X; and

e) a fifth set comprising 2184delA.

16. The kit of claim 15, wherein said fifth set comprises 2184delA or the wild type version thereof.

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17. The kit of Claim 15, wherein said oligonucleotide detection assays comprise first and second oligonucleotides configured to form an invasive cleavage structure in combination with target sequences comprising said CFTR alleles.

15 18. The kit of Claim 17, wherein said first oligonucleotide comprises a 5' portion and a 3' portion, wherein said 3' portion is configured to hybridize to said target sequence, and wherein said 5' portion is configured to not hybridize to said target sequence.

20 19. The kit of Claim 17, wherein said second oligonucleotide comprises a 5' portion and a 3' portion, wherein said 5' portion is configured to hybridize to said target sequence, and wherein said 3' portion is configured not to hybridize to said target sequence.

25 20. A kit comprising oligonucleotide detection assays configured for detecting a set of CFTR alleles, wherein said set is selected from:

a) a first set comprising 2789+5G>A, R1162X, R560T, 1898+1G>A, delI507, I148T, and A455E;

30 b) a second set comprising 3120+1G>A, 3659delC, G551D, N1303K, 1078delT, R334W, 711+1G>T, and 3849+10kb;

- c) a third set comprising 621+1G>T, W1282X, 1717-1G>A, and R117H; and
- d) a fourth set comprising R347P, G85E, 2184delA, G542X, and R553X.

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21. The kit of Claim 20, wherein said oligonucleotide detection assays comprise first and second oligonucleotides configured to form an invasive cleavage structure in combination with target sequences comprising said CFTR alleles.